Return

Project Tracking No.: P-021-FY05-DNR

Return on Investment (ROI) Program Funding Application

This template was built using the ITD ROI Submission Intranet application.
FINAL AUDIT REQUIRED: The Enterprise Quality Assurance Office of the Information Technology Department is required to perform post implementation outcome audits for all Pooled Technology funded projects and may perform audits on other projects.

This is a Pooled Technology Fund Request. Amount of funding requested: $427,410.00

Section I: Proposal

Date:	7/28/2003
Agency Name:	Natural Resources
Project Name:	SPARS Web Enabling
Agency Manager:	Cherity Gabrielle
Agency Manager Phone Number / E-Mail:	(515)281-4873 / cherity.gabrielle@dnr.state.ia.us
Executive Sponsor (Agency Director or Designee):	Joann Naples

D. Statutory or Other Requirements

Is this project or expenditure necessary for compliance with a Federal law, rule, or order?
☐ YES (If "Yes", cite the specific Federal law, rule or order, with a short explanation of how this project is impacted by it.)
Explanation:

Is this project or expenditure required by state law, rule or order?
☐ YES (If "YES", cite the specific state law, rule or order, with a short explanation of how this project is impacted by it.)
Explanation:

Does this project or expenditure meet a health, safety or security requirement?
☐ YES (If "YES", explain.)
Explanation:

Is this project or expenditure necessary for compliance with an enterprise technology standard?
☑ YES (If "YES", cite the specific standard.)
Explanation:
By web enabling SPARS we are complying with the standard for electronic forms and workflow through ITD for the enterprise of the State of Iowa (S-TA-010-001) by creating web access for clients and citizens of important data. In addition, porting the current SPARS application to the Web allows an easier electronic exchange of permit applications between the regulated community and the DNR, and it enables the sharing of information between different locations or subsidiaries of the same regulated company facilitating ease of use and participation in the electronic application process by the larger customers.

[This section to be scored by application evaluator.]

Evaluation (20 Points Maximum)
If the answer to these criteria is "no," the point value is zero (0). Depending upon how directly a qualifying project or expenditure may relate to a particular requirement (federal mandate, state mandate, health-safety-security issue, or compliance with an enterprise technology standard), or satisfies more than one requirement (e.g. it is mandated by state and federal law and fulfills a health and safety mandate), 1-20 points awarded.

E. Impact on Iowa's Citizens

a. Project Participants

List the project participants (i.e. single agency, multiple agencies, State government enterprise, citizens, associations, or businesses, other levels of government, etc.) and provide commentary concerning the nature of participant involvement. Be sure to specify who and how many **direct** users the system will impact. Also specify whether the system will be of use to other interested parties: who they may be, how many people are estimated, and how they will use the system.
Response:

Web enabling SPARS will help Industry, Citizens and the DNR by:
· Receiving construction and/or operating permit application software and updates;
· Filling out permit applications by computer;
· Importing preexisting electronic information into application software to reduce data entry';
· Supplying previous facility information in electronic format, free to applicants for the first time;
· Entering consistent information easier via drop down lists for choices of valid information;
· Attaching supporting documentation in TIF, Microsoft Office 97 or HTML formats;
· Submitting permit applications;
· Controlling and coordinating permit applications at a corporate level for each of the regulated company's facilities;
· Reusing existing electronic information to create new applications, updates or modify current applications;
· Updating and submitting yearly air operating emission inventories; and
· Following the DNRs permit application review.

The Public uses SPARS for:
· Viewing of reports and queries for emissions information, local permit applications, emission summaries and other data; and

· Viewing draft and final operating permits, construction permits may also be posted.

The DNR uses SPARS for:
· Receiving consistent and valid information from applicants electronically;
· Maintaining data in database;
· Querying data during permit review;
· Generating special reports for internal and external uses;
· Retaining legal records of all permit data; and
· Allowing users to view data simultaneously.

Other Government Agencies:
· Adding in-depth compliance information, rules, regulations, permit writing and issuing tools, export to EPA databases and GIS information.

b. Service Improvements

Summarize the extent to which the project or expenditure improves service to Iowa citizens or within State government. Included would be such items as improving the quality of life, reducing the government hassle factor, providing enhanced services, improving work processes, etc.
Response:

Web enablement of the SPARS application will greatly improve the customer service offered by the IDNR to members of the regulated community by eliminating the need for them to:
· obtain the SPARS application from the IDNR
· update their own databases
· provide staff to maintain and support their own databases
· send information electronically to the state
· coordinate multiple applications from the same regulated company

All of these factors provide for a reduction in reporting burden for all IDNR customers and provides accessibility to multiple facilities within the same regulated company thereby facilitating their use of the electronic permit application system that is currently not being fully utilized. In addition, as changes are made to the database, the IDNR will not have the burden of ensuring that all customers receive the change and are able to update their systems, thus allowing IDNR staff to spend their time on more important customer service issues associated with air quality data and reporting.

c. Citizen Impact

Summarize how the project leads to a more informed citizenry, facilitates accountability, and encourages participatory democracy. If this is an extension of another project, what has been the adopted rate of Iowa's citizens or government employees with the preceding project?
Response:

Web enabling SPARS provides Iowa’s citizens with centralized access to up-to-date information about air quality in the state, and affords them significantly greater ease of obtaining this information at any time from any location with Internet access.

d. Public Health and/or Safety

Explain requirements or impact on the health and safety of the public.
Response:

[This section to be scored by application evaluator.]

<u>Evaluation</u> (10 Points Maximum)

- Minimally improves Customer Service (0-3 points).
- Moderately improves Customer Service (4-6 points).

- Significantly improves Customer Service (7-10 points).

[This section to be scored by application evaluator.]

Evaluation (15 Points Maximum)

- Minimally directly impacts Iowa citizens (0-5 points).
- Moderately directly impacts Iowa citizens (6-10 points).
- Significantly directly impacts Iowa citizens (11-15 points).

F. Process Reengineering

Provide a pre-project or pre-expenditure (before implementation) description of the impacted system or process. Be sure to include the procedures used to administer the impacted system or process and how citizens interact with the current system.

Response:

Currently the permit applications are created on stand alone databases at each facility. An electronic image of that application is exported from the facilities database and sent to the DNR. The DNR imports the electronic permit application received from each facility into the DNR SPARS database and processes the permit application internally.

Provide a post-project or post-expenditure (after implementation) description of the impacted system or process. Be sure to include the procedures used to administer the impacted system or process and how citizens will interact with the proposed system. In particular, note if the project or expenditure makes use of information technology in reengineering traditional government processes.

Response:

The proposed SPARS enhancement allows for Web access to consolidate each of the individual stand alone databases at each facility into the DNR SPARS database and allow secured access for each facility to create and maintain their specific permit applications. This enhancement eliminates the exporting and importing of electronic images of permit applications required currently. This enhancement also allows multiple facilities within the same regulated company to construct the permit applications under centralized control and guidance from the corporate office. Another benefit is the elimination of modified software and database deployment to each facility's stand alone system that will save a considerable amount of time.

[This section to be scored by application evaluator.]

Evaluation (10 Points Maximum)

- Minimal use of information technology to reengineer government processes (0-3 points).
- Moderate use of information technology to reengineer government processes (4-6 points).
- Significant use of information technology to reengineer government processes (7-10).

[This section to be scored by application evaluator.]

Evaluation (5 Points Maximum)

- The timeline contains several problem areas (0-2 points)
- The timeline seems reasonable with few problem areas (3-4 points)
- The timeline seems reasonable with no problem areas (5)

H. Funding Requirements

On a fiscal year basis, enter the estimated cost by funding source: Be sure to include developmental costs and ongoing costs, such as those for hosting the site, maintenance, upgrades, ...

	FY05		FY06		FY07	
	Cost($)	% Total Cost	Cost ($)	% Total Cost	Cost ($)	% Total Cost
State General Fund	$0	0%	$0	0%	$0	0%
Pooled Tech. Fund /IowAccess Fund	$427,410	100%	$0	0%	$0	0%
Federal Funds	$0	0%	$0	0%	$0	0%
Local Gov. Funds	$0	0%	$0	0%	$0	0%
Grant or Private Funds	$0	0%	$0	0%	$0	0%
Other Funds (Specify)	$0	0%	$0	0%	$0	0%
Total Project Cost	$427,410	100%	$0	100%	$0	100%
Non-Pooled Tech. Total	$0	0%	$0	0%	$0	0%

[This section to be scored by application evaluator.]

Evaluation (10 Points Maximum)

- The funding request contains questionable items (0-3 points)
- The funding request seems reasonable with few questionable items (4-6 points)
- The funding request seems reasonable with no problem areas (7-10)

I. Scope

Is this project the first part of a future, larger project?
☐ YES (If "YES", explain.) ☑ NO, it is a stand-alone project.
Explanation:

Is this project a continuation of a previously begun project?
☑ YES (If "YES", explain.)
Explanation:
Yes, this is continuation of the SPARS project. SPARS was originally started in 1997 and has been continually enhanced since the initial project.

J. Source of Funds

On a fiscal year basis, how much of the total project cost ($ amount and %) would be absorbed by your agency from non-Pooled Technology and/or IOWAccess funds? If desired, provide additional comment / response below.
Response:
$0, 0%

[This section to be scored by application evaluator.]

Evaluation (5 Points Maximum)

- 0% (0 points)
- 1%-12% (1 point)
- 13%-25% (2 points)
- 25%-38% (3 points)
- 39%-50% (4 points)
- Over 50% (5 points)

Section II: Financial Analysis

A. Project Budget Table

It is necessary to estimate and assign a useful life figure to each cost identified in the project budget. Useful life is the amount of time that project related equipment, products, or services are utilized before they are updated or replaced. In general, the useful life of hardware is three (3) years and the useful life of software is four (4) years. Depending upon the nature of the expense, the useful life for other project costs will vary between one (1) and four (4) years. On an exception basis, the useful life of individual project elements or the project as a whole may exceed four (4) years. Additionally, the ROI calculation must include all new annual ongoing costs that are project related.

The Total Annual Prorated Cost (State Share) will be calculated based on the following equation:

$$\left[\left(\frac{Budget\ Amount}{Useful\ Life}\right) \times \%\ State\ Share\right] + \left(Annual\ Ongoing\ Cost \times \%\ State\ Share\right) = Annual\ Prorated\ Cost$$

Budget Line Items	Budget Amount (1st Year Cost)	Useful Life (Years)	% State Share	Annual Ongoing Cost (After 1st Year)	% State Share	Annual Prorated Cost
Agency Staff	$0	1	0.00%	$0	0.00%	$0
Software	$167,290	4	100.00%	$39,637	100.00%	$81,460
Hardware	$88,216	3	100.00%	$0	0.00%	$29,405
Training	$0	4	0.00%	$0	0.00%	$0
Facilities	$0	1	0.00%	$0	0.00%	$0
Professional Services	$171,904	4	100.00%	$0	0.00%	$42,976

ITD Services	$0	4	0.00%	$0	0.00%	$0
Supplies, Maint, etc.	$0	1	0.00%	$0	0.00%	$0
Other	$0	1	0.00%	$0	0.00%	$0
Totals	$427,410	---	---	$39,637	---	$153,841

C. Tangible and/or Intangible Benefits

Respond to the following and transfer data to the ROI Financial Worksheet as necessary:

1. Annual Pre-Project Cost - This section should be completed only if state government operations costs are expected to be reduced as a result of project implementation. **Quantify actual state government direct and indirect costs** (personnel, support, equipment, etc.) associated with the activity, system or process prior to project implementation.
Describe Annual Pre-Project Cost:
N/A

Quantify Annual Pre-Project Cost:

	State Total
FTE Cost (salary plus benefits):	$0.00
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	$0.00
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	$0.00
Total Annual Pre-Project Cost:	$0.00

2. Annual Post-Project Cost - This section should be completed only if state government operations costs are expected to be reduced as a result of project implementation. **Quantify actual state government direct and indirect costs** (personnel, support, equipment, etc.) associated with the activity, system or process after project implementation.
Describe Annual Post-Project Cost:
N/A

Quantify Annual Post-Project Cost:

	State Total
FTE Cost (salary plus benefits):	$0.00
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	$0.00
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	$0.00
Total Annual Post-Project Cost:	$0.00

3. Citizen Benefit - Quantify the estimated annual value of the project to Iowa citizens. This includes the "hard cost" value of avoiding expenses ("hidden taxes") related to conducting business with State government. These expenses may be of a personal or business nature. They could be related to transportation, the time expended on or waiting for the manual processing of governmental paperwork such as licenses or applications, taking time off work, mailing, or other similar expenses. As a "rule of thumb," use a value of $10 per hour for citizen time.

Describe savings justification:

Transaction Savings

Number of annual online transactions:	1
Hours saved/transaction:	15
Number of Citizens affected:	2,948
Value of Citizen Hour	10
Total Transaction Savings:	$442,200
Other Savings (Describe)	$0
Total Savings:	$442,200

4. Opportunity Value/Risk or Loss avoidance - Quantify the estimated annual non-operations benefit to State government. This could include such items as qualifying for additional matching funds, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, avoiding the consequences of not complying with State or Federal laws, providing enhanced services, avoiding the consequences of not complying with enterprise technology standards, etc.

Response:
The opportunity value of web-enabling SPARS is the additional clients that will use the SPARS software. Currently most of the major fee payers are continuing to use other ways of reporting emission inventories and submitting paper reports because they cannot access data from their other facilities currently through SPARS. DNR clients have requested a networkable solutions rather than a standalone version of SPARS. This will allow people in other parts of the state to work with their corporate office in submitting reports with out the necessity of downloading, installing and maintaining the standalone SPARS, they will eliminate the import and export information, DNR will not need to import and export information (including the amount of time spent debugging clients databases) and the amount of time that it takes for the paper copy to be delivered. It is estimated that this is a savings of 24+hours. Our current data reflects that only 20% of the major sources use SPARS. We have 294 sources 80% of that is 235 sources that will begin using SPARS and have the 24 hour savings. Using a figure of 24 hours for 80% of the major sources is a savings of 24 X 235 or 5,640 hours. The average hourly rate (with benefits) for an environmental engineer to perform these functions is $41.50 per hour. That is an additional savings of $234,060.

5. Benefits Not Readily Quantifiable - List and summarize the overall non-quantifiable benefits (i.e., IT innovation, unique system application, utilization of new technology, hidden taxes, improving the quality of life, reducing the government hassle factor, meeting a strategic goal, etc.).
Response:
The non quantifiable benefits to this project are providing enhanced services to the clients and to the public. In providing this enhancement the agency is in compliance with the enterprise technology standards to ensure web usage. Clients will have more accessibility to the data and will not need to maintain their own databases. Other bureaus or agencies with the same clients will be able to access the data through web access, which will allow sharing of accurate and timely data. In addition overall the project supports the state goals of going to electronic forms.

ROI Financial Worksheet	
A. Total Annual Pre-Project cost (State Share from Section II C1):	$0
B. Total Annual Post-Project cost (State Share from Section II C2):	$0
State Government Benefit (= A-B):	$0
Annual Benefit Summary:	$0
State Government Benefit:	$0
Citizen Benefit:	$442,200
Opportunity Value or Risk/Loss Avoidance Benefit:	$234,259
C. Total Annual Project Benefit:	$676,459
D. Annual Prorated Cost (From Budget Table):	$153,841

Benefit / Cost Ratio: (C/D) =	4.40
Return On Investment (ROI): ((C-D) / Requested Project Funds) * 100 =	122.28%

[This section to be scored by application evaluator.]

Evaluation (25 Points Maximum)

- The financial analysis contains several questionable entries and provides minimal financial benefit to citizens (0-8 points).
- The financial analysis seems reasonable with few questionable entries and provides a moderate financial benefit to citizens (9-16 points).
- The financial analysis seems reasonable with no problem areas and provides maximum financial benefit to citizens (17-25).

Note: For projects where no State Government Benefit, Citizen Benefit, or Opportunity Value or Risk/Loss Avoidance Benefit is created due to the nature of the project, the Benefit/Cost Ratio and Return on Investment values are set to Zero.

Appendix A. Auditable Outcome Measures

For each of the following categories, list the auditable metrics for success after implementation and identify how they will be measured.

1. Improved customer service

Going to web-submitted permit applications will allow DNR staff to increase their efficiency and reduce the turn around time for processing operating and construction permit applications. Faster turn around time should also increase customer satisfaction levels by reducing the time between submitting an application and the DNR's approval to operate or build a building. This technology will help standardize the options that customers are offered, allowing DNR staff, private or public engineers to design practices and structures that will bring these facilities in compliance with state and federal laws.

Increased participation with the new functionality of allowing multiple facilities to be monitored, controlled, and guided by the corporate office of the Major Sources will serve to build a stronger and more robust relationship with those customers.

The DNR will be able to provide a significantly improved level of customer service because the enhanced flow of timely and accurate information from the web enabled system will provide for faster, more efficient action and decision making on the part of the DNR. These actions will, in turn, increase public safety and increase the productivity and accountability of the DNR.

More quality time will be available to spend observing, interacting, and advising clients to insure compliance with state and federal laws thereby taking a proactive leadership role in the community.

Improved customer service can be measured by conducting customer inquiries and surveys that will gain customer feedback regarding the new system.

2. Citizen impact

Web enablement of the SPARS database will allow DNR field office staff significantly improved access to

data instead of depending on central office to provide the information or struggling with current dial-in access, cutting query time from days to minutes.

By providing more accurate and timely information to all members of the DNR in a more streamlined and efficient manner the citizens of the state will enjoy a safer environment in which to live and work through a greatly improved system of environmental compliance. The increased level of public safety will be determined by monitoring the statistics from complaints and enforcement actions to see if the reportable violations decrease. This reduction in complaints and enforcement actions translates into a safer environment for Iowans.

Citizen impact can be measured by conducting customer inquiries and surveys that will gain customer feedback regarding the new system and by the number of "hits" on the system.

3. Cost Savings

Cost savings can be realized through "cost avoidance" as lawsuits or potential lawsuits are avoided as the regulated community becomes better informed and responsive. Additional cost savings can be realized through a reduction in staff time spent doing paperwork within the DNR that will be redirected toward more face-to-face contact with customers.

Decreased mailing expenses, less time spent coordinating software and database updates at each customer site, and the use of web enabled permit applications is expected to reduce DNR and customers' time and therefore costs of completing permit applications.

4. Project reengineering

Improved reliability of permit applications due to web-enabled entry against an up to date database will provide a new method of doing business with the regulated community in an effective and timely manner.

This project will result in an entirely new way of sending and receiving information between the customers within the regulated community. This integration of information represents a new business process for the regulated community and is a dramatic change from the old method of maintaining information in independent systems that are incapable of communicating with each other. Not only does this facilitate ease of use within the entire regulated community, but it also provides new functionality that allows multiple facilities to be monitored, controlled, and guided by the corporate office of the Major Sources. This can be measured by documenting the increase in the number of integrated systems that develop across the enterprise.

5. Source of funds (Budget %)

6. Tangible/Intangible benefits

Most of the benefits described in this project lead to enhanced customer satisfaction and reductions in staff time or frustration levels. While it's impossible to put a value on those elements, the DNR will be able to provide up-to-date information to a myriad of client groups that includes legislators, the press, public interest groups and citizens. Providing information quickly and accurately is essential.

Better decision-making, improved technical assistance, and accurate data will ultimately be reflected in better care of the natural resources that make Iowa such a productive state. Without clean water and clean air, the state cannot expect to attract people, industries or businesses.

Tangible benefits include: providing accessibility and ease of use for regulated companies with multiple facilities; improved safety for the general public; better customer-oriented service for the regulated community; increased cost avoidance through reduced litigation; better quality of product; more efficient, effective, and timely delivery of services; and more accurate and timely information.

Intangible benefits include: reduction or elimination of adversarial relationships and environments among the regulated community; increased level of understanding among the regulated community regarding the information they use and need; increased public confidence; enhance the cooperative relationship between the state and local jurisdictions and the state and local governments.

Intangible benefits can be measured through customer and worker inquiries.

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